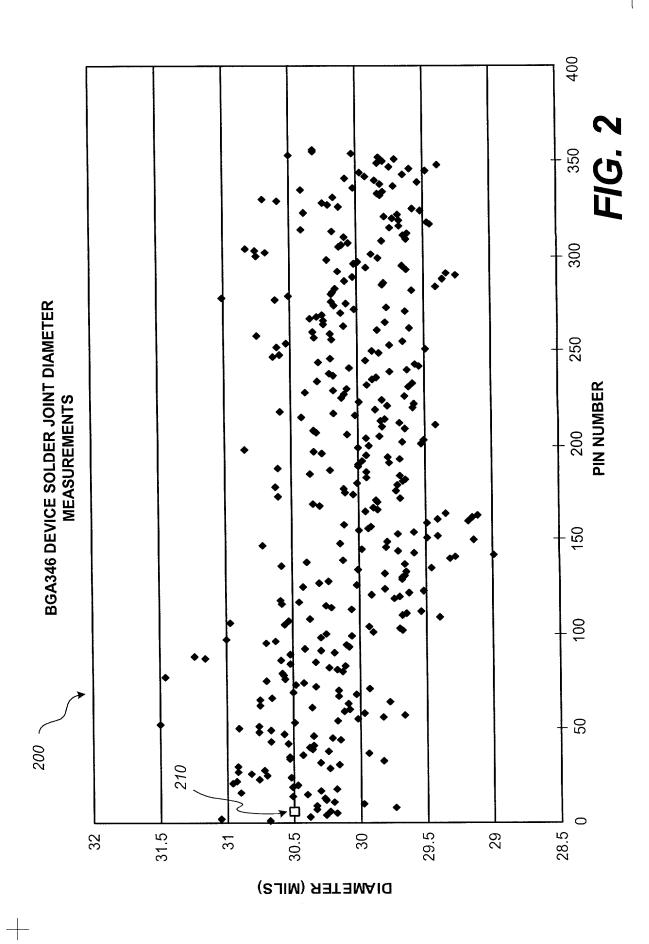
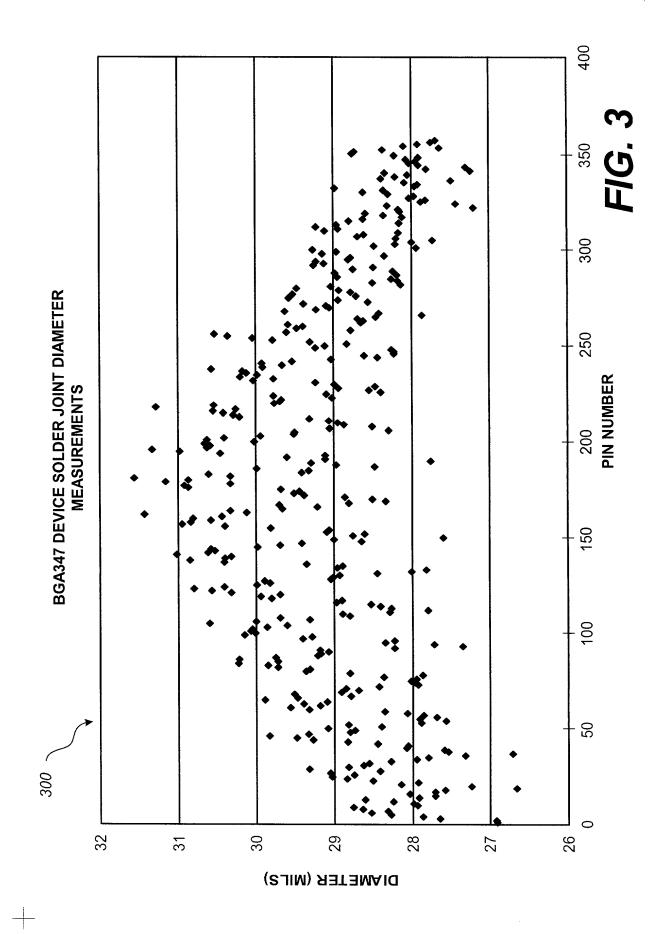
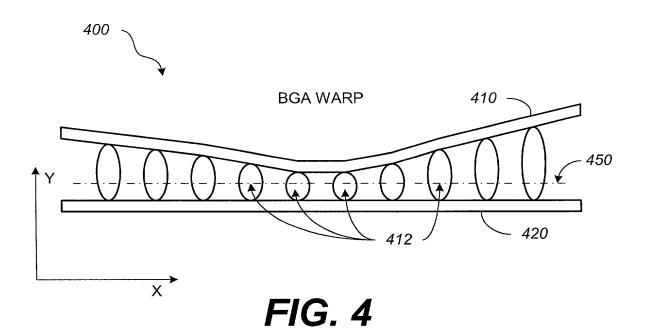


FIG. 1







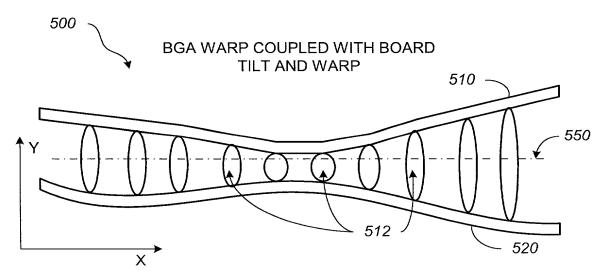


FIG. 5



DISTANCE FROM CENTROID OF PACKAGE

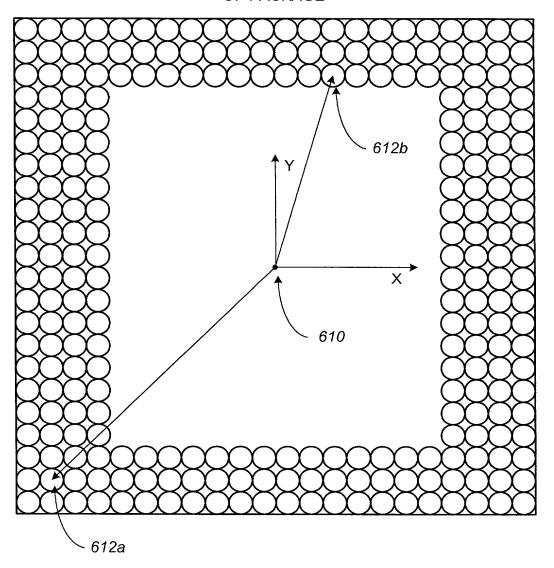
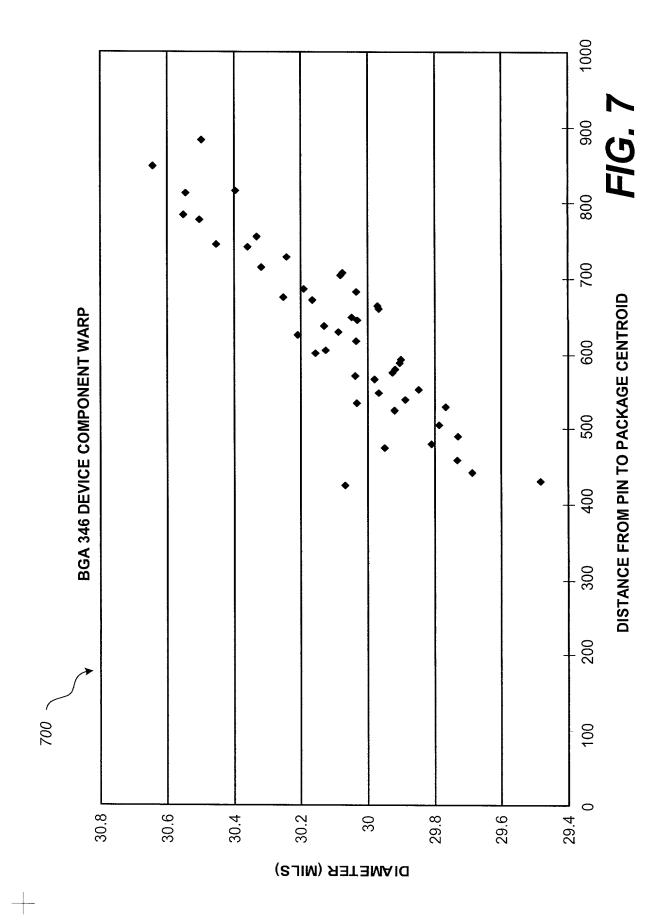
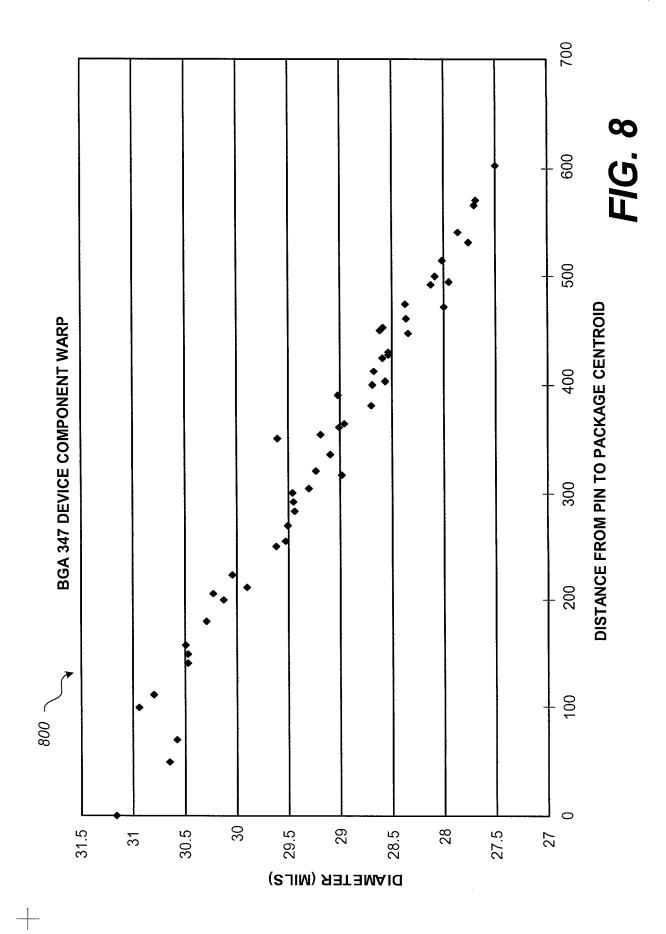
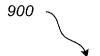


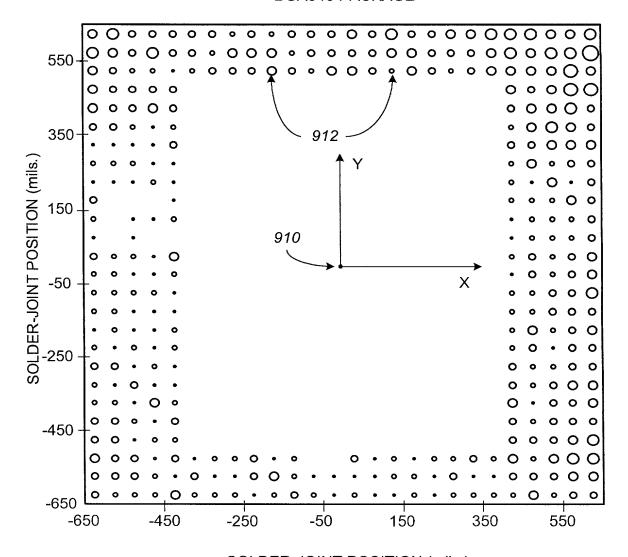
FIG. 6





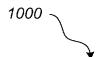


EXAGGERATED DIAMETER CHART FOR AN EXEMPLAR BGA346 PACKAGE



SOLDER-JOINT POSITION (mils.)

FIG. 9



The state of the s

EXAGGERATED DIAMETER CHART FOR AN EXEMPLAR BGA347 PACKAGE

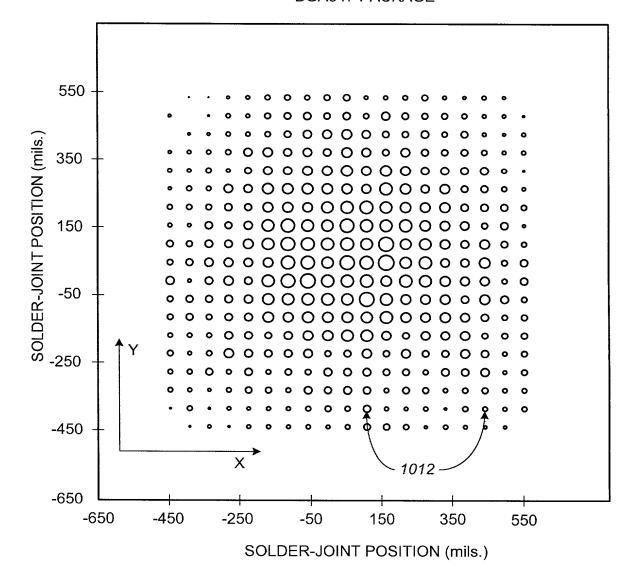
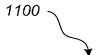


FIG. 10



NEAR NEIGHBOR ANALYSIS

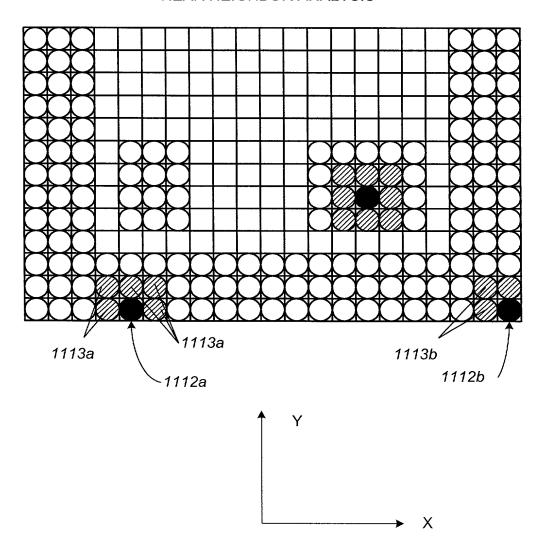
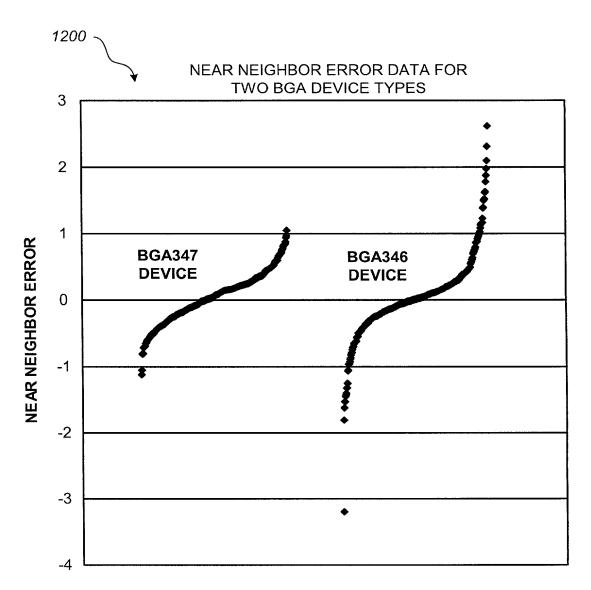
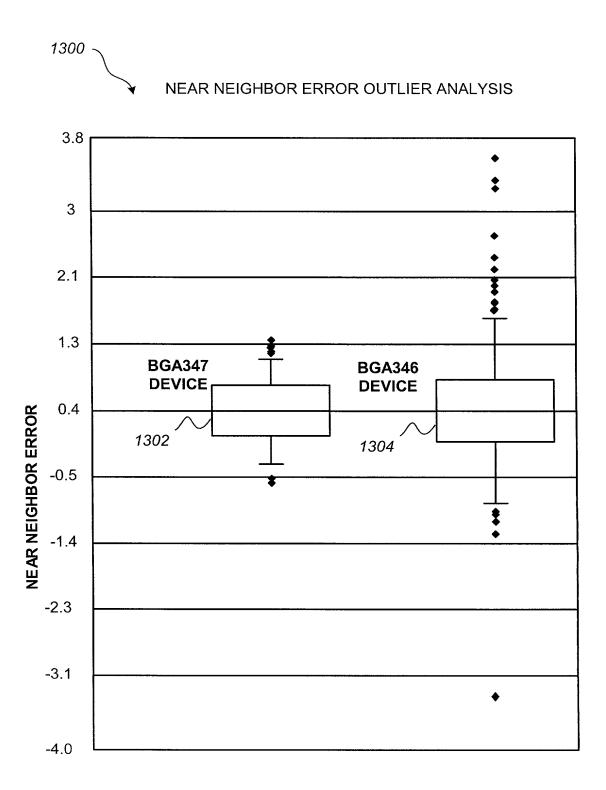


FIG. 11



PIN: SORTED BY COMPONENT, ERROR SIZE

FIG. 12



PIN: SORTED BY COMPONENT, ERROR SIZE

FIG. 13

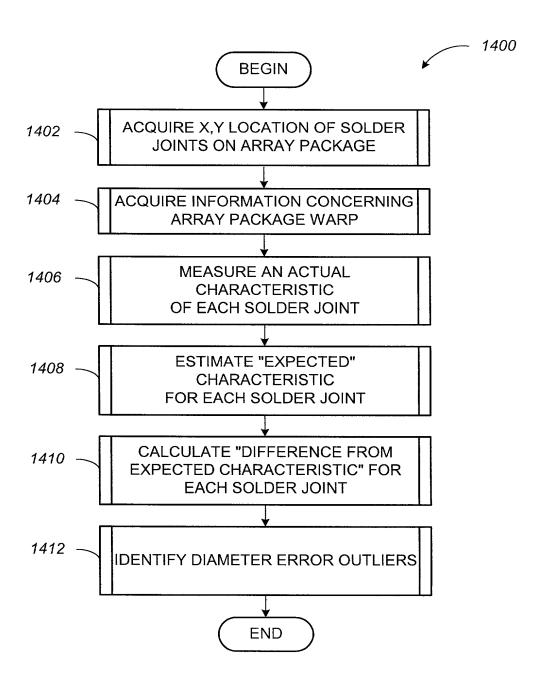


FIG. 14

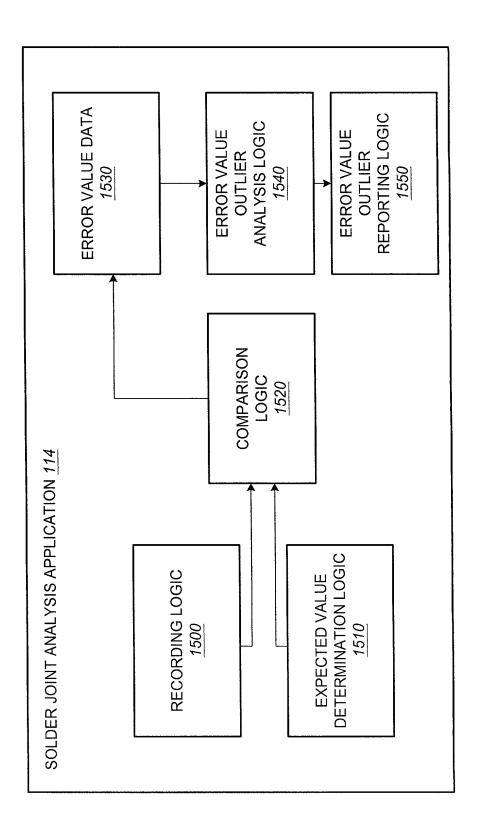


FIG. 15

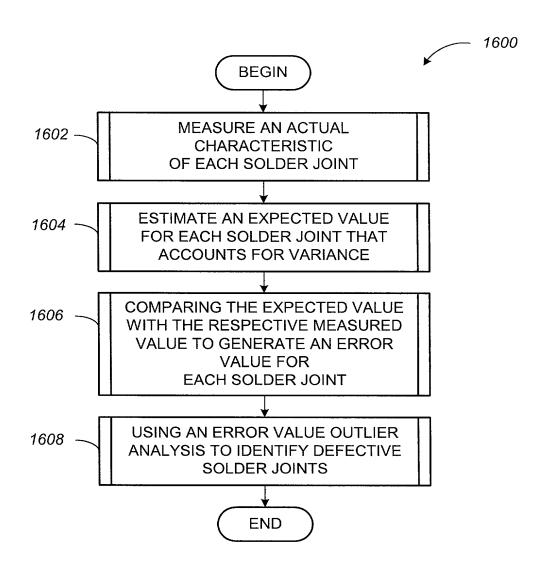


FIG. 16